

1. (Currently Amended) A method for designing a circuit that satisfies user-specified functional requirements, the method comprising the steps of:
receiving said user-specified functional requirements over a network from a client;
automatically determining, based on said user-specified requirements, components and a topology for constructing said a particular circuit that is constructable on a circuit board;
wherein the step of determining components includes determining components that have operational values such that, when said components are arranged according to said topology to form said particular circuit, the particular circuit satisfies said user-specified functional requirements; and
delivering to said client over said network component information that identifies said components.
2. (Original) The method of Claim 1 wherein:
the client is executing a browser; and
the step of delivering said component information includes delivering to said browser one or more web pages that identify said components.
3. (Original) The method of Claim 2 wherein the step of delivering includes delivering one or more web pages that identify said components and that include at least one control which, when selected, initiates an operation for placing an order over said network for at least one of said components.

4. (Original) The method of Claim 3 wherein the step of automatically determining components includes the steps of:
automatically determining, based on said user-specified requirements, a plurality of suggested components, each of which may be used to design a circuit that satisfies said user-specified functional requirements;
delivering to said browser over said network one or more suggested component web pages that identify said plurality of suggested components;
in response to selection of a suggested component of said plurality of suggested components identified in said one or more suggested component web pages, receiving from said browser over said network a message that identifies the selected suggested component; and
automatically determining, based on said user-specified requirements and said selected suggested component, components for constructing a circuit that includes said selected suggested component and that satisfies said user-specified functional requirements.
5. (Original) The method of Claim 4 wherein the step of delivering to said browser over said network one or more suggested component web pages includes delivering one or more suggested component web pages that specify, for each suggested component of said plurality of suggested components, a price value.
6. (Original) The method of Claim 4 wherein the step of delivering to said browser over said network one or more suggested component web pages includes delivering one or more suggested component web pages that specify, for each suggested component of said plurality of suggested components, a component identifier and one or more operating values.

7. (Currently Amended) The method of Claim 3 further comprising the steps of:
determining a set of alternative components for a particular component of said
components, wherein each alternative component in said set of alternative
components may be used in said particular circuit in place of a particular
component;
delivering to said browser over said network one or more web pages that identify
said components and that include a control that is associated said
particular component;
in response to selection of said control, displaying on said browser said set of
alternative components; and
in response to selection of one of said alternative components, updating said
design to include said selected alternative component in place of said
particular component.
8. (Original) The method of Claim 3 wherein said operation for placing an order is
an operation for placing an order for a kit that includes a plurality of said
components.
9. (Original) The method of Claim 8 wherein said operation for placing an order is
an operation for placing an order for a kit that includes all of said components.
10. (Currently Amended) The method of Claim 3 wherein said operation for placing
an order is an operation for placing an order with another party for the other party
to construct a said particular circuit.
11. (Original) The method of Claim 3 further comprising the step of automatically
determining, based on said user-specified requirements, one or more prefabricated
circuits for that satisfy said user-specified functional requirements.

12. (Original) The method of Claim 11 further comprising the step delivering to said browser over said network one or more web pages that identify said one or more prefabricated circuits and that include at least one control which, when selected, initiates an operation for placing an order over said network for at least one of said one or more prefabricated circuits.
13. (Original) The method of Claim 3 wherein:
the user-specified functional requirements include one or more input values; and
the step of automatically determining components includes
 applying one or more input values from said user-specified functional
 requirements to a formula to determine one or more required
 parameter values, and
 determining said components based on said one or more required
 parameter values.
14. (Currently Amended) The method of Claim 2 further comprising the steps of:
providing data that identifies said components and said topology to a schematic
 design generation module; and
delivering to said browser, based on output from said schematic design generation
 module, one or more web pages that display a schematic design of said
 particular circuit that includes said components arranged according to said
 design.
15. (Original) The method of Claim 14 wherein:
the user-specified functional requirements include one or more input values; and
the step of automatically determining components includes

applying one or more input values from said user-specified functional requirements to a formula to determine one or more required parameter values, and
determining said components based on said one or more required parameter values.

16. (Currently Amended) The method of Claim 14 wherein the browser is operated by a particular user, the method further comprising the steps of:
storing, on server-side storage, design data that specifies the design of said particular circuit and data that associates the design data with said user;
and
delivering to said browser a web page that identifies a set of previously saved designs associated with said user, said previously saved designs including the design of said particular circuit; and
in response to user input at said browser, delivering to said browser a web page that includes a schematic diagram generated based on the design data stored on said server-side storage.
17. (Original) The method of Claim 16 further comprising the steps of:
in response to user input at said browser that indicates that said design is to be shared with a second user, storing data that associates the design data with said second user;
delivering to a second browser operated by said second user a web page that identifies a set of previously saved designs associated with said second user, said previously save designs including the design of said particular circuit; and

in response to user input at said second browser, delivering to said second browser a web page that includes a schematic diagram generated based on the design data stored on said server-side.

18. (Currently Amended) The method of Claim 14 wherein:
the step of automatically determining components includes determining components that have specific operational values;
the step of providing data that identifies said components includes providing data that identifies components with said specific operational values; and
the step of delivering one or more web pages that display a schematic design of said particular circuit includes delivering to said browser a web page that displays an arrangement of said components with said specific operational values.
19. (Currently Amended) A computer-readable medium carrying instructions for designing a circuit that satisfies user-specified functional requirements, the instructions including instructions for performing the steps of:
receiving said user-specified functional requirements over a network from a client;
automatically determining, based on said user-specified requirements, components and a topology for constructing said a particular circuit that is constructable on a circuit board;
wherein the step of determining components includes determining components that have operational values such that, when said components are arranged according to said topology to form said particular circuit, the particular circuit satisfies said user-specified functional requirements; and
delivering to said client over said network component information that identifies said components.

20. (Original) The computer-readable medium of Claim 19 wherein:
the client is executing a browser; and
the step of delivering said component information includes delivering to said
browser one or more web pages that identify said components.
21. (Original) The computer-readable medium of Claim 20 wherein the step of
delivering includes delivering one or more web pages that identify said
components and that include at least one control which, when selected, initiates an
operation for placing an order over said network for at least one of said
components.
22. (Original) The computer-readable medium of Claim 21 wherein the
step of automatically determining components includes the steps of:
automatically determining, based on said user-specified requirements, a plurality
of suggested components, each of which may be used to design a circuit
that satisfies said user-specified functional requirements;
delivering to said browser over said network one or more suggested component
web pages that identify said plurality of suggested components;
in response to selection of a suggested component of said plurality of suggested
components identified in said one or more suggested component web
pages, receiving from said browser over said network a message that
identifies the selected suggested component; and
automatically determining, based on said user-specified requirements and said
selected suggested component, components for constructing a circuit that
includes said selected suggested component and that satisfies said user-
specified functional requirements.

23. (Original) The computer-readable medium of Claim 22 wherein the step of delivering to said browser over said network one or more suggested component web pages includes delivering one or more suggested component web pages that specify, for each suggested component of said plurality of suggested components, a price value.
24. (Original) The computer-readable medium of Claim 22 wherein the step of delivering to said browser over said network one or more suggested component web pages includes delivering one or more suggested component web pages that specify, for each suggested component of said plurality of suggested components, a component identifier and one or more operating values.
25. (Currently Amended) The computer-readable medium of Claim 21 further comprising instructions for performing the steps of:
- determining a set of alternative components for a particular component of said components, wherein each alternative component in said set of alternative components may be used in said particular circuit in place of a particular component;
- delivering to said browser over said network one or more web pages that identify said components and that include a control that is associated said particular component;
- in response to selection of said control, displaying on said browser said set of alternative components; and
- in response to selection of one of said alternative components, updating said design to include said selected alternative component in place of said particular component.

26. (Original) The computer-readable medium of Claim 21 wherein said operation for placing an order is an operation for placing an order for a kit that includes a plurality of said components.
27. (Original) The computer-readable medium of Claim 26 wherein said operation for placing an order is an operation for placing an order for a kit that includes all of said components.
28. (Currently Amended) The computer-readable medium of Claim 21 wherein said operation for placing an order is an operation for placing an order with another party for the other party to construct a said particular circuit.
29. (Original) The computer-readable medium of Claim 21 further comprising instructions for performing the step of automatically determining, based on said user-specified requirements, one or more prefabricated circuits for that satisfy said user-specified functional requirements.
30. (Original) The computer-readable medium of Claim 29 further comprising instructions for performing the step delivering to said browser over said network one or more web pages that identify said one or more prefabricated circuits and that include at least one control which, when selected, initiates an operation for placing an order over said network for at least one of said one or more prefabricated circuits.
31. (Original) The computer-readable medium of Claim 21 wherein:
the user-specified functional requirements include one or more input values; and
the step of automatically determining components includes

applying one or more input values from said user-specified functional requirements to a formula to determine one or more required parameter values, and
determining said components based on said one or more required parameter values.

32. (Currently Amended) The computer-readable medium of Claim 20 further comprising the steps of:
providing data that identifies said components and said topology to a schematic design generation module; and
delivering to said browser, based on output from said schematic design generation module, one or more web pages that display a schematic design of said particular circuit that includes said components arranged according to said design.
33. (Original) The computer-readable medium of Claim 32 wherein:
the user-specified functional requirements include one or more input values; and
the step of automatically determining components includes
applying one or more input values from said user-specified functional requirements to a formula to determine one or more required parameter values, and
determining said components based on said one or more required parameter values.
34. (Currently Amended) The computer-readable medium of Claim 32 wherein the browser is operated by a particular user, the computer-readable medium further comprising instructions for performing the steps of:

storing, on server-side storage, design data that specifies the design of said
particular circuit and data that associates the design data with said user;
and
delivering to said browser a web page that identifies a set of previously saved
designs associated with said user, said previously saved designs including
the design of said particular circuit; and
in response to user input at said browser, delivering to said browser a web page
that includes a schematic diagram generated based on the design data
stored on said server-side storage.

35. (Currently Amended) The computer-readable medium of Claim 34 further
comprising instructions for performing the steps of:
in response to user input at said browser that indicates that said design is to be
shared with a second user, storing data that associates the design data with
said second user;
delivering to a second browser operated by said second user a web page that
identifies a set of previously saved designs associated with said second
user, said previously save designs including the design of said particular
circuit; and
in response to user input at said second browser, delivering to said second
browser a web page that includes a schematic diagram generated based on
the design data stored on said server-side.

- 1 36. (Currently Amended) The computer-readable medium of Claim 32 wherein:
2 the step of automatically determining components includes determining
3 components that have specific operational values;
4 the step of providing data that identifies said components includes providing data
5 that identifies components with said specific operational values; and

6 the step of delivering one or more web pages that display a schematic design of
7 said particular circuit includes delivering to said browser a web page that
8 displays an arrangement of said components with said specific operational
9 values.